

Building observation

State Energy Assessment Workshop

By:

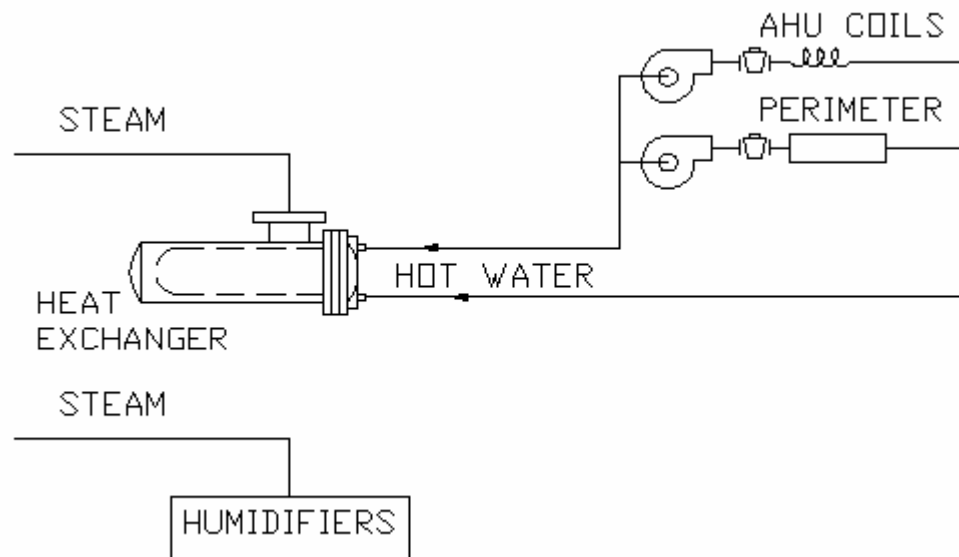
DTE Energy Partnership & Services

Williams Building

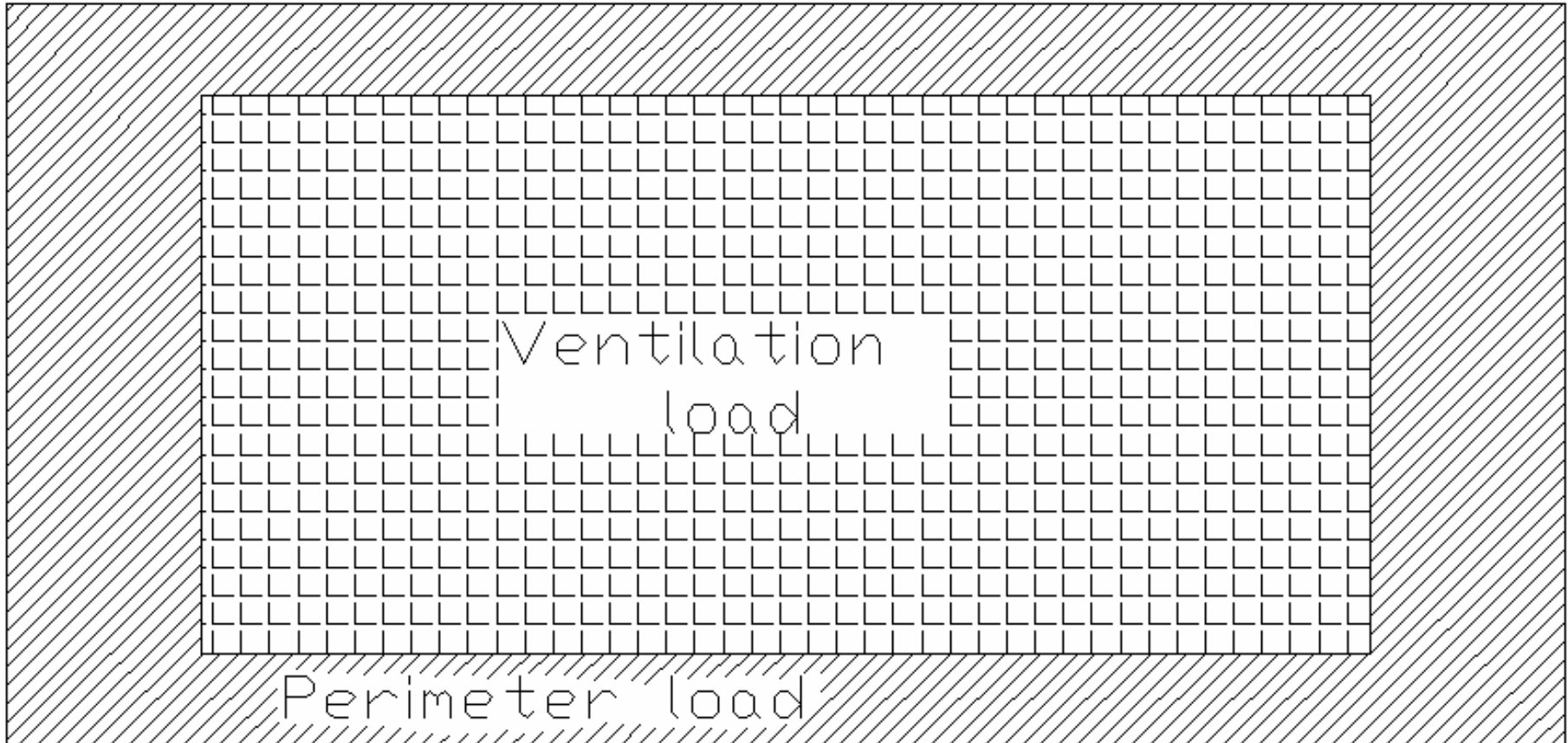
- ❑ Buy steam
- ❑ Buy chilled water



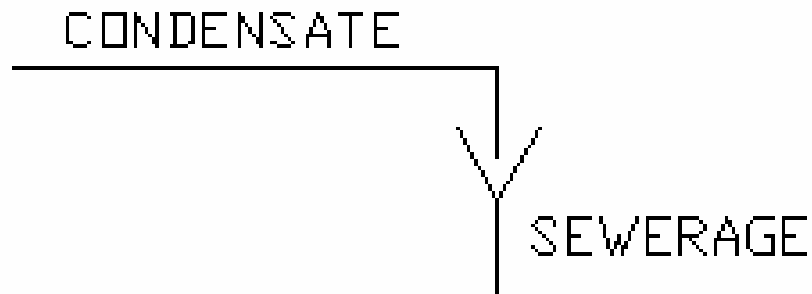
Heating system



AHU/perimeter radiation



Condensate return is dumped into sewerage



Recommendations -
Cascade heat recovery:

- ☐ Heating system
- ☐ Domestic hot water



Radiant heat in garage area 50% glycol
runs 24 hrs continuously

AMAZING SAVINGS

Recommendations:

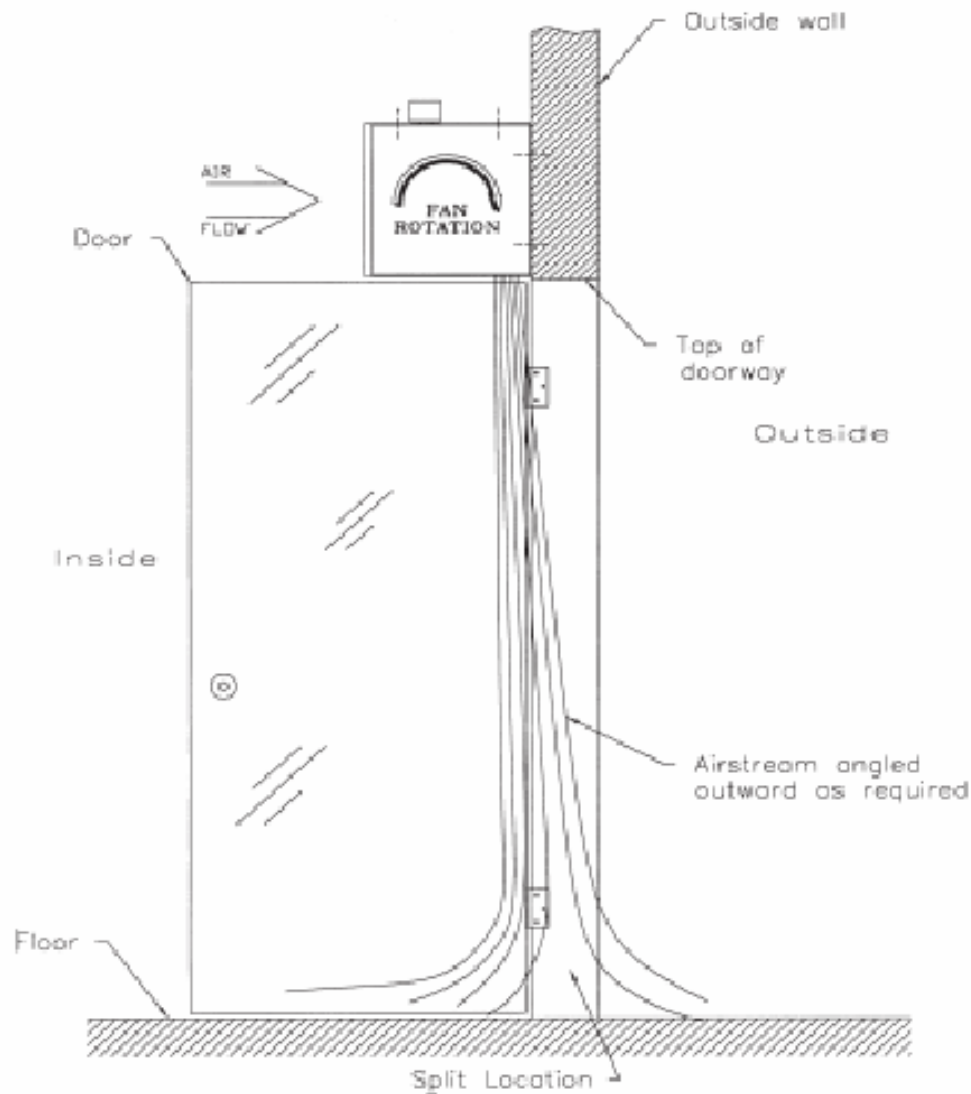
Garage area isolation

Control exhaust and make up

Avoid glycol



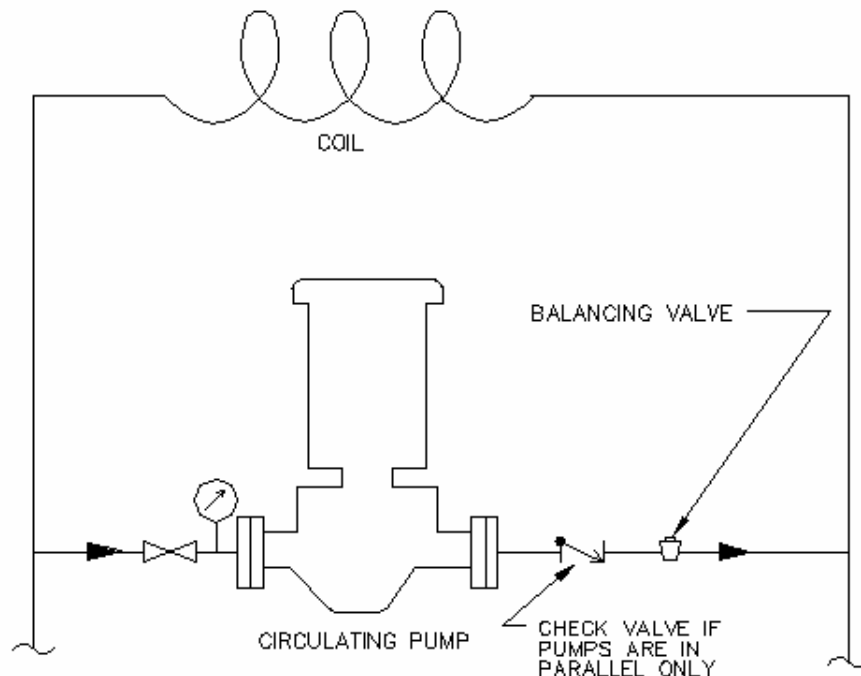
Air Curtain



Two AHUs for North Wing run in winter time even at night for freezing protection

Recommendations:

- ❑ 100% RECIRCULATION
- ❑ CIRCULATION PUMP

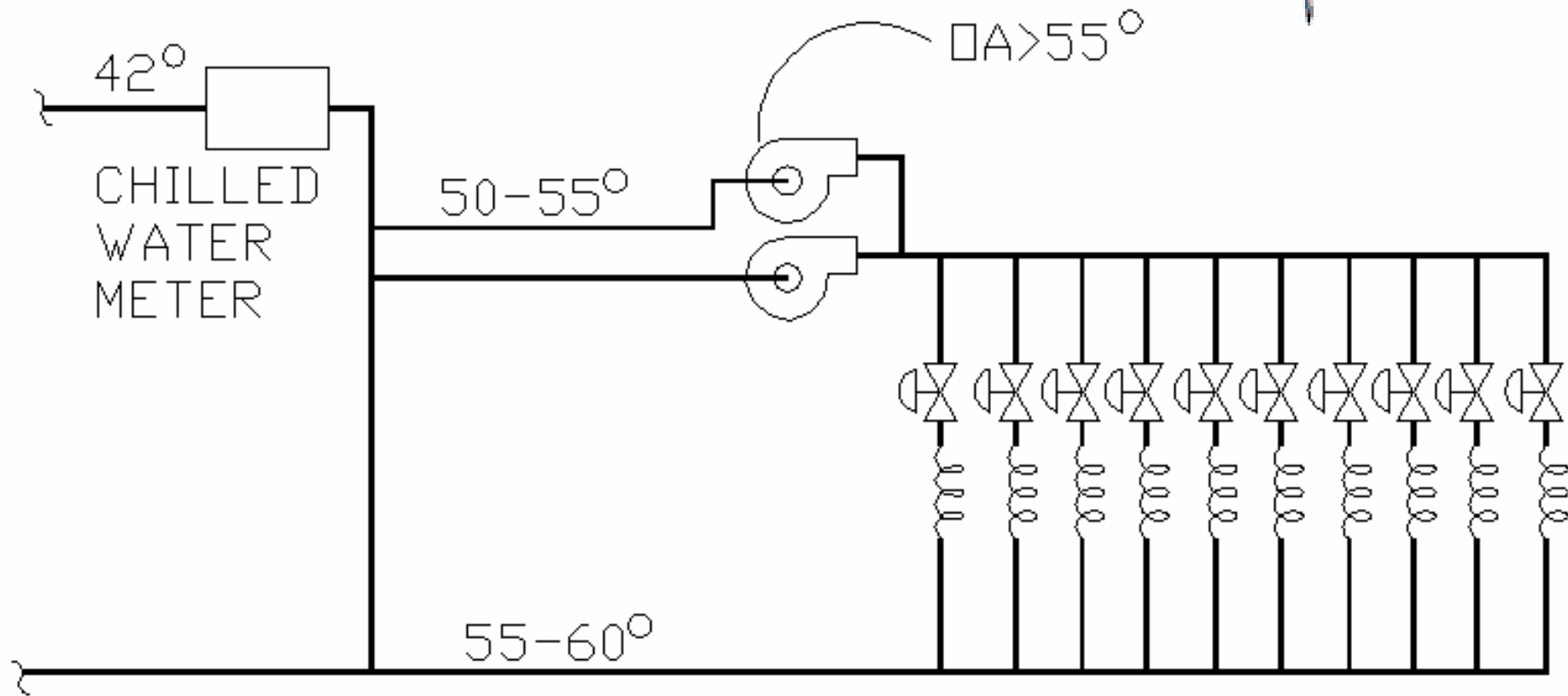
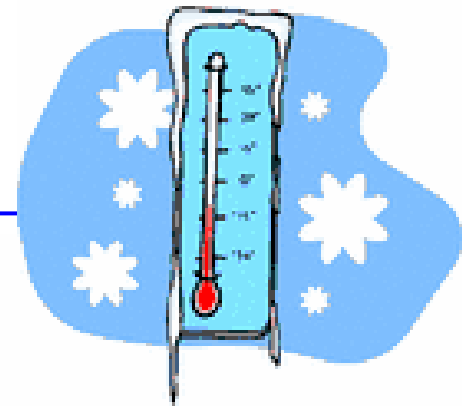


Chilled Water

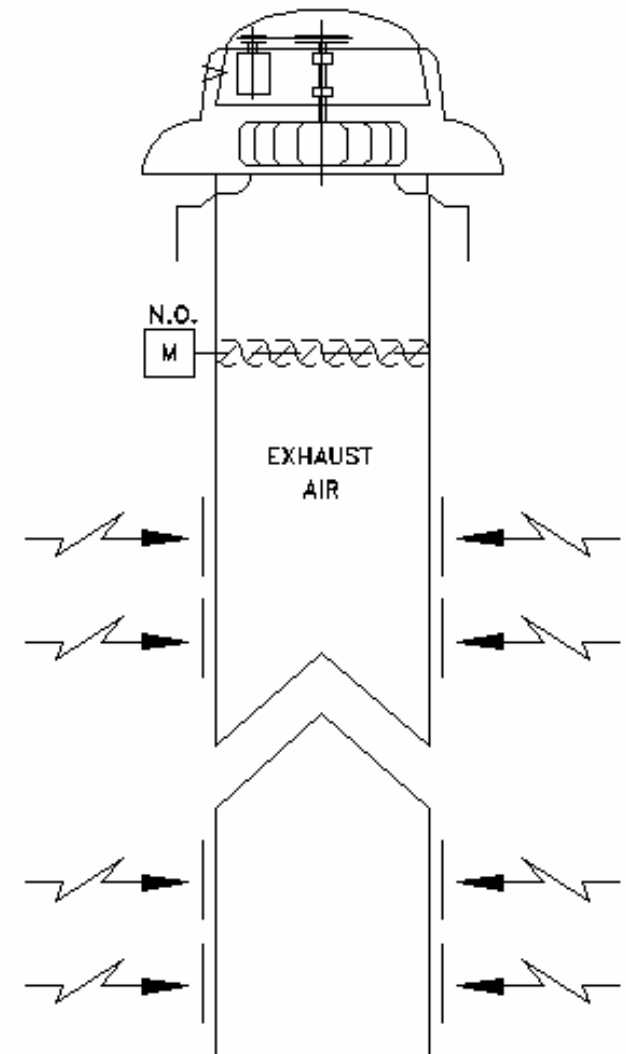
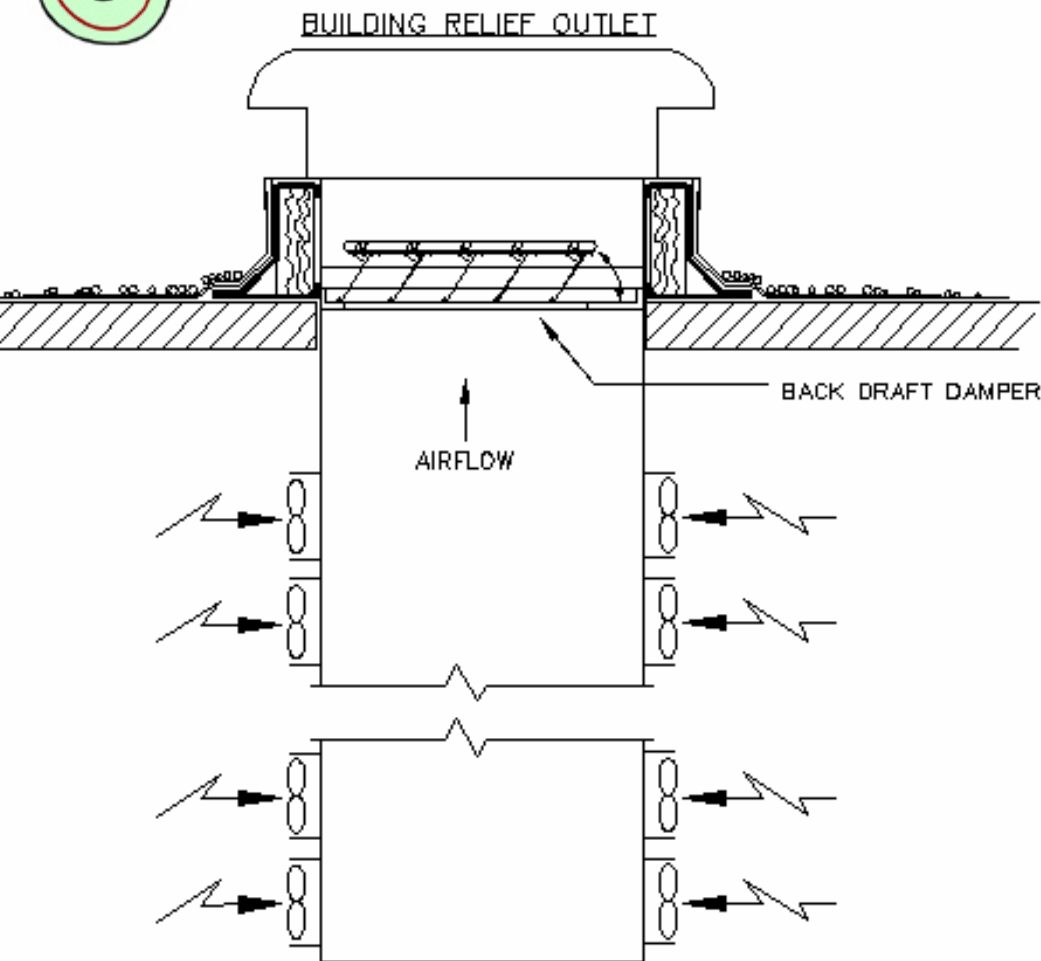
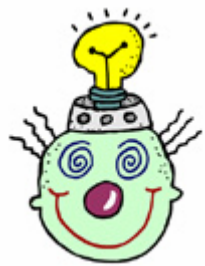
Constant Flow

2-way Valve

DTE Energy



16 Rest Rooms In One Common Exhaust



Infiltration

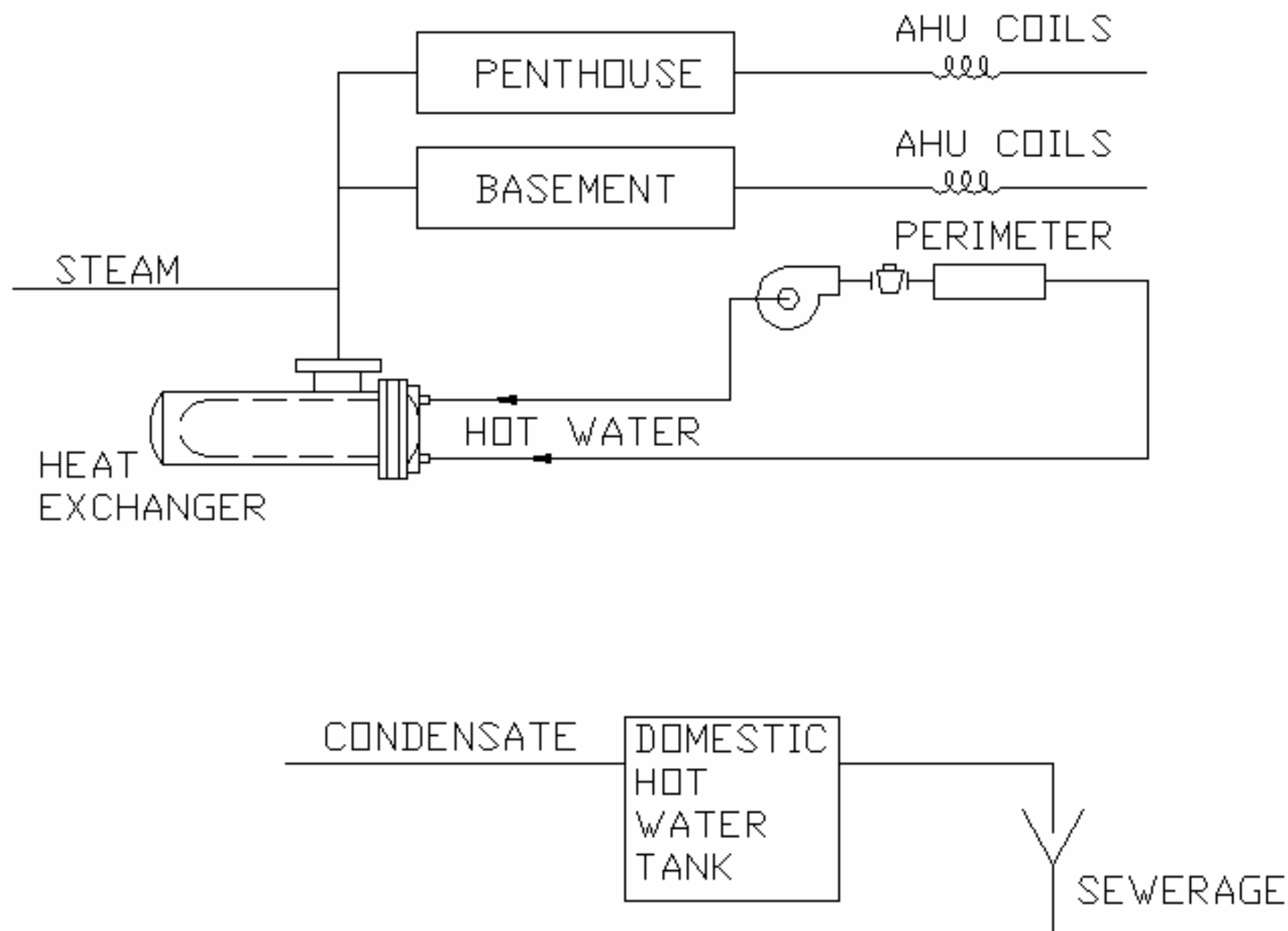
- ❑ Windows sealing and caulking
- ❑ Pressurize area for 10%



Mason Building

- ❑ Buy stearn
- ❑ Buy chille
water





Chilled water



CHILLED
WATER

PENTHOUSE

AHU COILS



BASEMENT

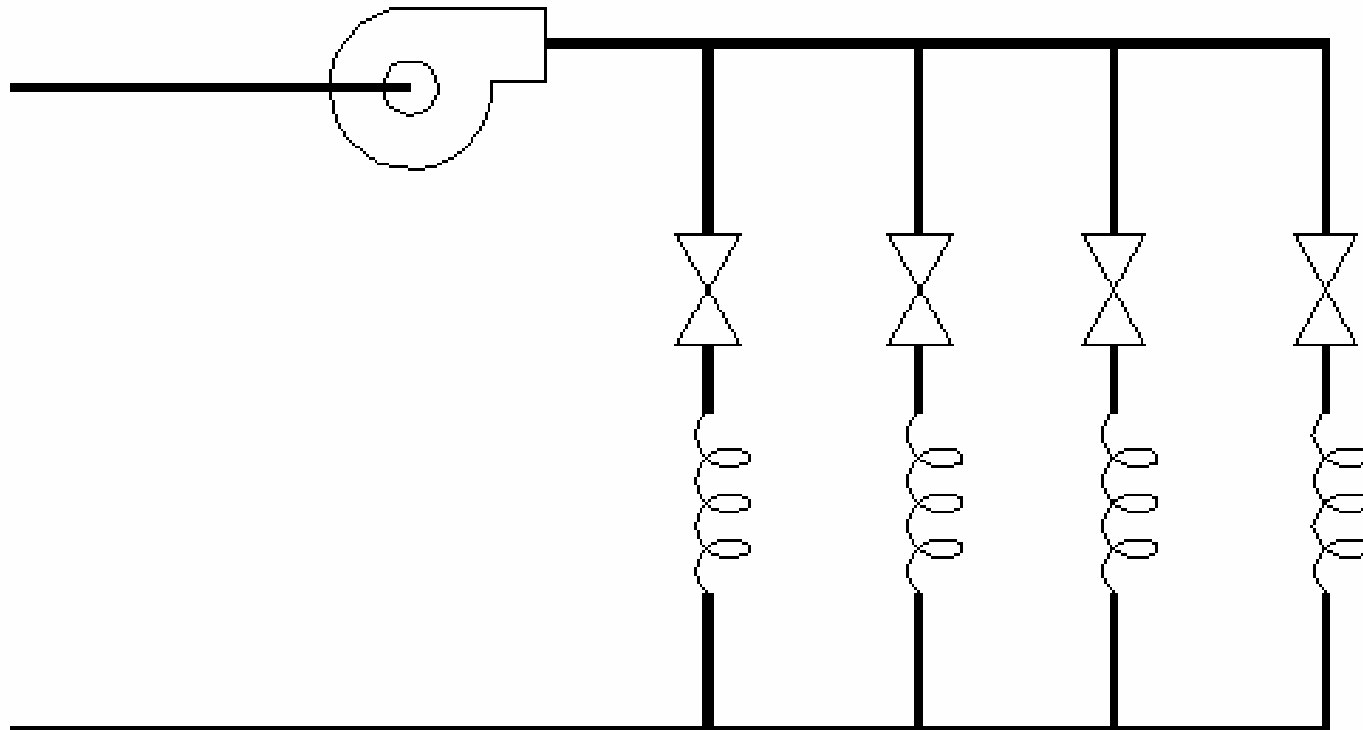
2-PIPE FAN
COILS

- ❑ Chilled water piping is old
- ❑ Insulation is damaged

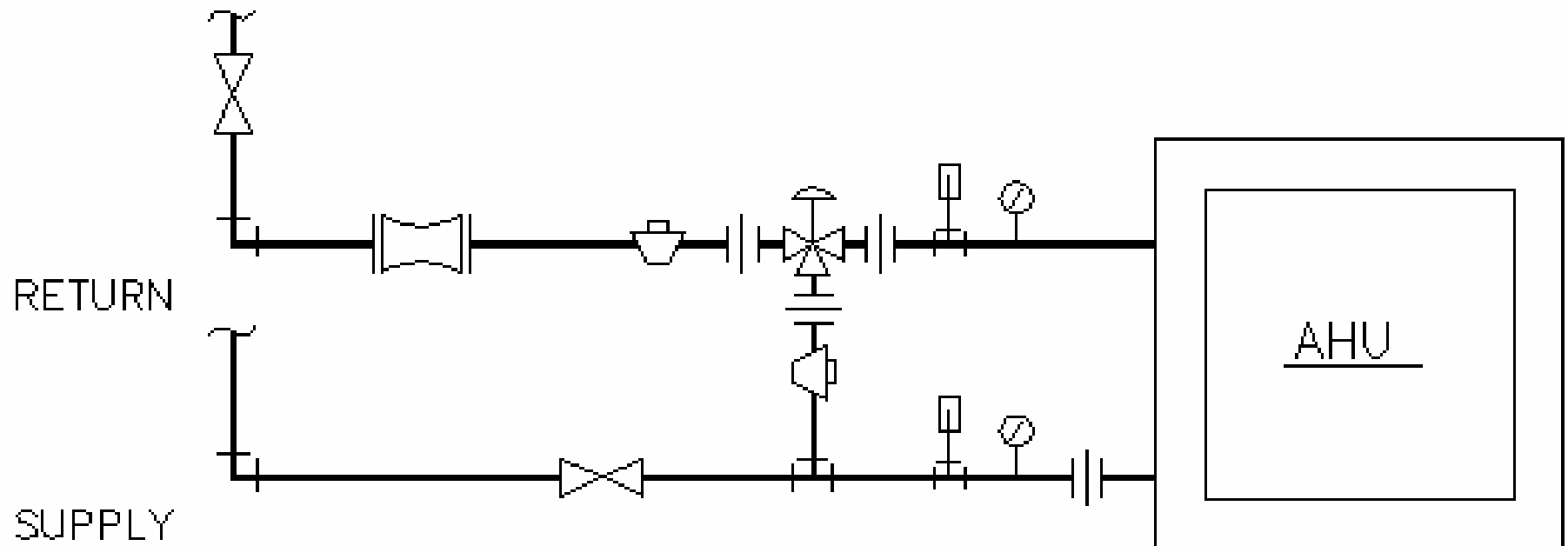


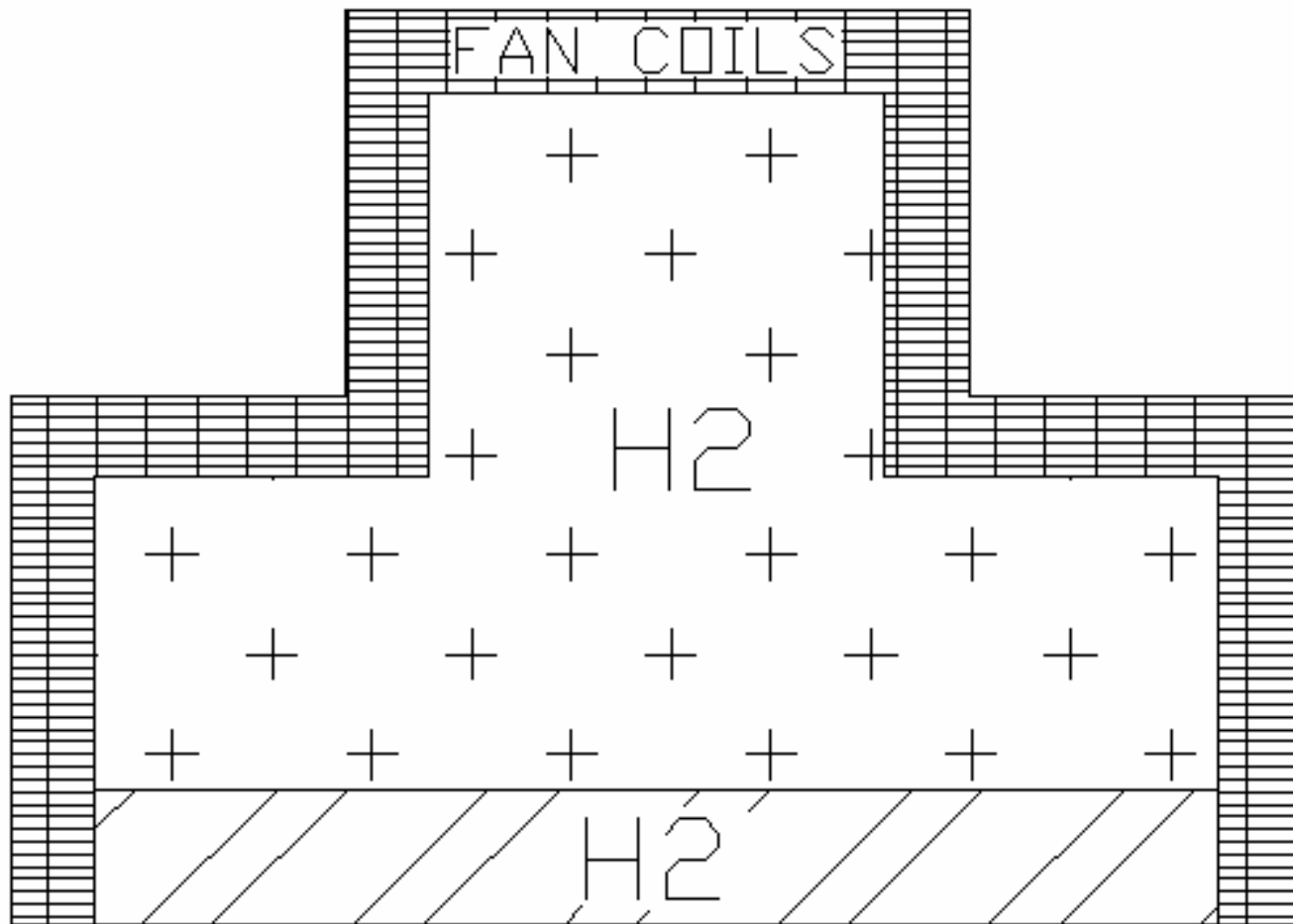
HOT WATER/CHILLED WATER

- ❑ 2-WAY VALVE
- ❑ CONSTANT FREQUENCY PUMP



RECOMMENDATION





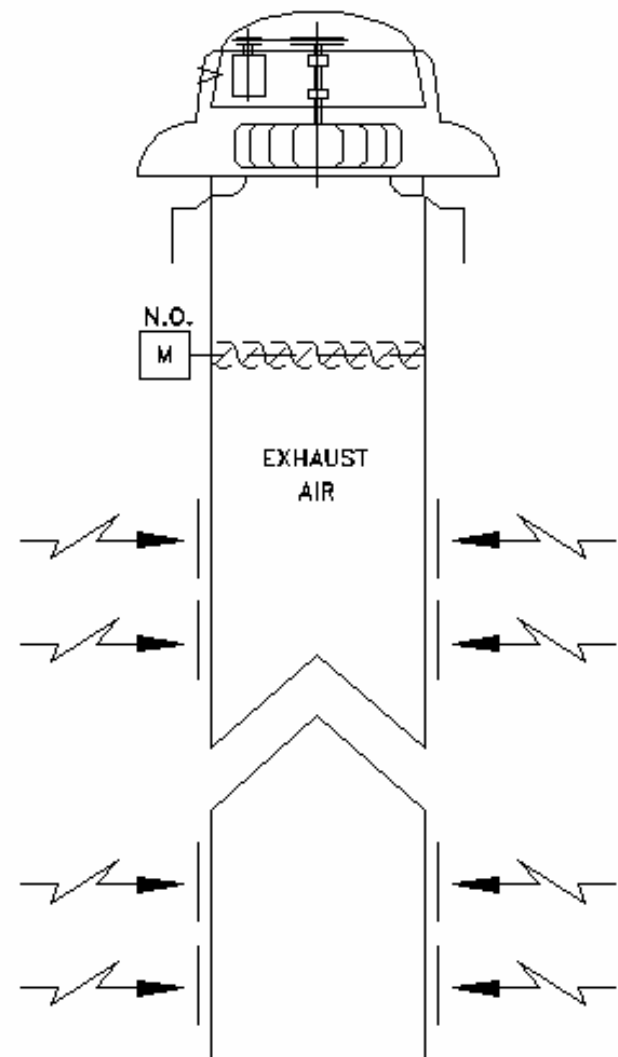
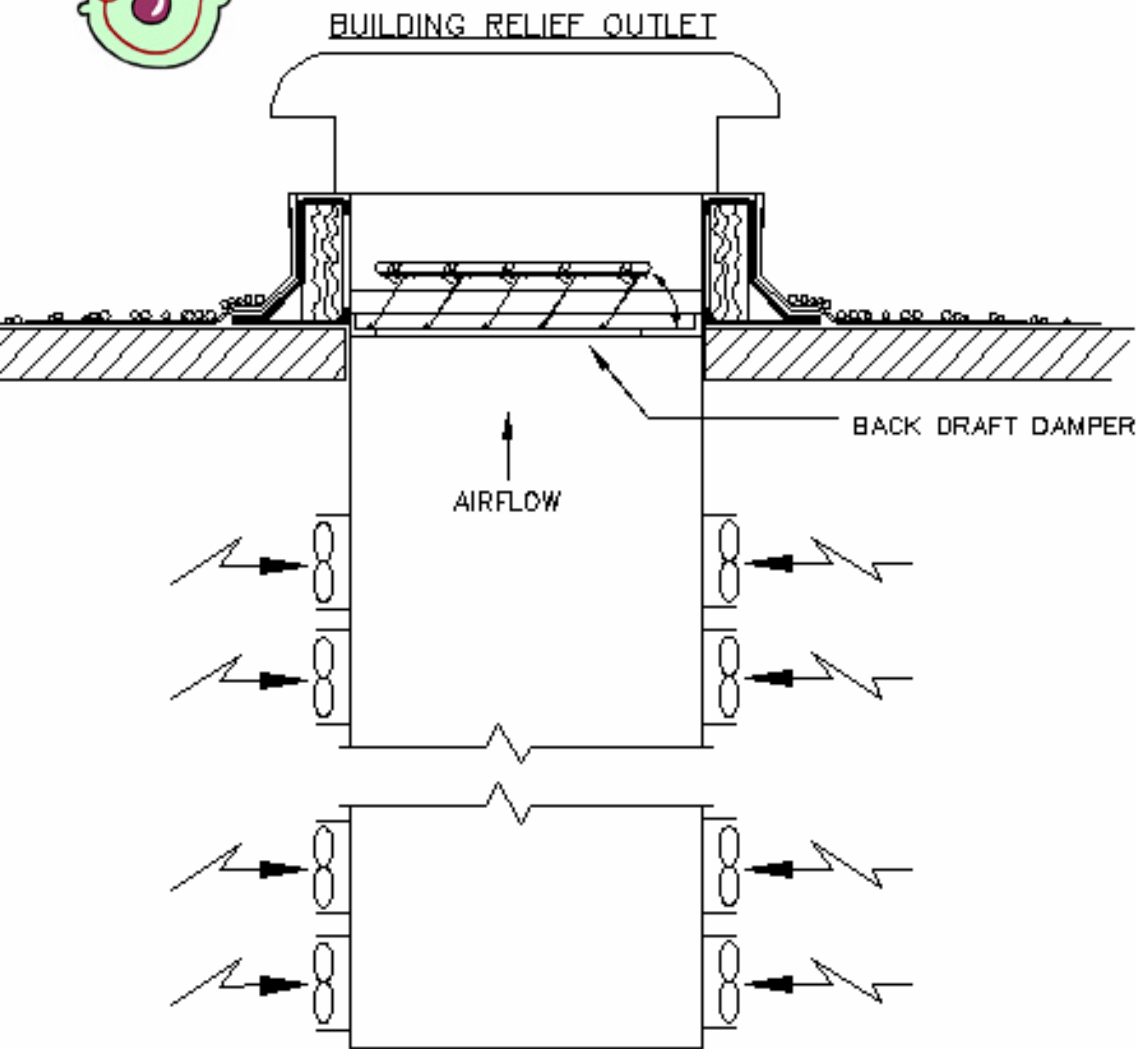
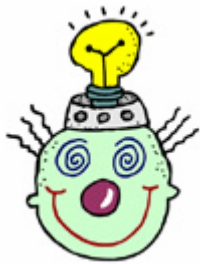
- ❑ Balancing problems on the 4th floor
- ❑ Return is not balanced
- ❑ Ductwork is not cleaned
- ❑ Some areas are overheated even in winter time

Recommendations

- ❑ Provide Units Control
- ❑ VAV system



20 REST ROOMS IN ONE COMMON EXHAUST



Treat your building well

